AMENDMENT TO CLAIMS:

65. (new) A composite wall structure for a vascular tubular member for repair of injury to a blood vessel within the body, said composite wall structure comprising;

A. flexible strands having axial componency interwoven in an alternating manner over and under consecutive flexible strands having circumferential componency, said composite wall structure providing for sealing at crossover points,

B. circumferential structural strands having circumferential componency interwoven by said flexible strands wherein any one of said flexible strands having circumferential componency is replaced by one of said circumferential structural strands, said circumferential structural strands providing for functional characteristics for said vascular tubular member, said circumferential structural strands and said flexible strands having substantially continuous contact with neighboring strands such that said composite wall structure will not significantly leak blood serum or blood cellular elements,

C. said composite wall structure adapted to allow axial structural strands to extend with axial componency and be interwoven with said circumferential structural strands and said flexible strands, wherein said composite wall structure will not leak blood cellular elements.

66. (new) A composite wall structure for a vascular tubular member for repair of injury to a blood vessel within the body, said composite wall structure comprising;

A. flexible strands having axial componency interwoven in an alternating manner over and under consecutive flexible strands having circumferential componency, said composite wall structure providing for sealing at crossover points,

B. circumferential structural strands having circumferential componency interwoven by said flexible strands wherein any one of said flexible strands having

circumferential componency is replaced by one of said circumferential structural strands, said circumferential structural strands providing for functional characteristics for said vascular tubular member, said circumferential structural strands and said flexible strands having substantially continuous contact with neighboring strands such that said composite wall structure will not significantly leak blood serum or blood cellular elements.

67. (new) A composite wall structure for a vascular tubular member for repair of injury to a blood vessel within the body, said composite wall structure comprising;

A. flexible strands having axial componency interwoven in an alternating manner over and under consecutive flexible strands having circumferential componency, said composite wall structure providing for sealing at crossover points,

B. circumferential structural strands interwoven by said flexible strands wherein any one of said flexible strands having circumferential componency is replaced by one of said circumferential structural strands, said circumferential structural strands providing for functional characteristics for said vascular tubular member,

C. said circumferential structural strands being interwoven in an alternating manner over and under each consecutive flexible strand having axial componency, said circumferential structural strands and said flexible strands having substantially continuous contact with neighboring strands such that said composite wall structure will not significantly leak blood serum or blood cellular elements,

D. said composite wall structure adapted to allow axial structural strands to extend with axial componency and be interwoven with said circumferential structural strands, wherein said composite wall structure will not leak blood cellular elements.

68. (new) The composite wall structure of claim 65 wherein said vascular tubular member is deliverable with a smaller diameter to the blood vessel and adapted to expand to a larger diameter within the blood vessel.

69. (new) The composite wall structure of claim 65 wherein said vascular tubular member is a bifurcated tubular member.

70. (new) The composite wall structure of claim 65 wherein said flexible strands are multifilament strands.

71. (new) The composite wall structure of claim 70 wherein said multifilament strands are formed from a polymeric material.

72. (new) The composite wall structure of claim of claim 70 wherein said multifilament flexible strands are formed from a material taken from a group which includes polytetrafluoroethylene, polyester, silicone, carbon, polyurethane, and composite materials.

73. (new) The composite wall structure of claim 70 wherein said multifilament strands are formed from expanded polytetrafluouroethylene.

74. (new) The composite wall structure of claim 65 wherein said structural strands are monofilament strands.

75. (new) The composite wall structure of claim 74 wherein said monofilament strands are formed from a metal.

76. (new) The composite wall structure of claim 74 wherein said monofilament strands are formed from a material taken from a group which includes stainless steel, nitinol, titanium, tantalum, platinum, metal alloys, and metal composites.

77. (new) The composite wall structure of claim 74 wherein said monofilament strands are formed from a material which is polymeric.

78. (new) The composite wall structure of claim 74 wherein said monofilament strands are formed from a material taken from a group which includes polytetrafluoroethylene, carbon, polyester, polyurethane, and polymeric composite materials.

79. (new) The composite wall structure of claim 65 wherein said structural strands are multifilament strands.

80. (new) The composite wall structure of claim 79 wherein said multifilament strands are formed from strands taken from a group which includes metallic strands, polymeric strands, carbon strands, composite strands, a mixture of metallic and polymeric strands, and composite strands formed from a mixture of metallic and polymeric fibers.

81. (new) The composite wall structure of claim 79 wherein said multifilament strands are polytetrafluoroethylene strands.

82. (new) The composite wall structure of claim 81 wherein said polytetrafluoroethylene strands are formed from expanded polytetrafluoroethylene.

83. (new) The composite wall structure of claim 65 wherein said flexible strands are monofilament strands.

84. (new) The composite wall structure of claim 83 wherein said monofilament strands are formed of a material taken from a group which includes metals, metal alloys, polymers, composite materials, and carbon.

85. (new) The composite wall structure of claim 83 wherein said monofilament strands are polytetrafluoroethylene strands.

86. (new) The composite wall structure of claim 85 wherein said polytetrafluoroethylene strands are formed of expanded polytetrafluoroethylene.

87. (new) The composite wall structure of claim 65 wherein said composite wall structure is a braided structure wherein said circumferential and axial structural strands each extend with both circumferential and axial componency.

88. (new) The composite wall structure of claim 65 wherein said circumferential structural strands provide kink resistance.

89. (new) The composite wall structure of claim 66 comprising axial structural strands having axial componency in at least a portion of said vascular tubular member.

90. (new) The composite wall structure of claim 89 wherein at least a fractional number of said axial structural strands extend proximally beyond an inlet end of said vascular tubular member.

91. (new) The composite wall structure of claim 90 wherein said axial structural strands extending proximally beyond an inlet end of said vascular tubular member are attached to an attachment means that is positioned at a distance away and proximal said inlet end, said vascular tubular member being attached to the blood vessel remote from said inlet end.